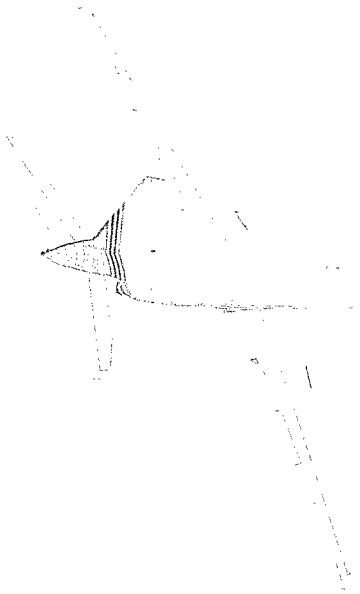
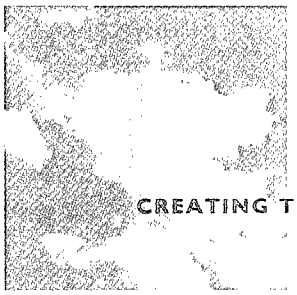
FAA Strategic Plan

VOL. 2: STRATEGIC IMPLEMENTATION





FAA Strategic Plan

Volume 2: Strategic Implementation

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Introduction to Volume 2

Volume 1 of this Strategic Plan outlines the strategic direction for FAA. On the basis of an extensive examination of the aviation environment, challenger sessions held with the aviation community, discussions with both FAA's top managers and experts in many fields, and a long look within FAA, the plan sets forth the mission, vision, and values to which FAA will adhere. It discusses the forces that will drive FAA action in the future aviation environment. It presents the key issues FAA must face, the goals and objectives FAA will accomplish, and the commitment FAA makes to achieving results.

The Appendix describes FAA's evolving future operational concept and the future air traffic management system. In detailed terms, it describes the future FAA is building.

This volume, Volume 2, is the implementation volume. It details some 350 specific milestones FAA will achieve over the next 5 years. They do not represent everything important FAA will do over the next 5 years. Rather, they represent actions that meet aviation community concerns. Volume 2 especially responds to the chief concern expressed by the aviation community; that FAA should not just plan, but should act quickly and decisively to gain high payoffs.

The milestones in Volume 2 describe how FAA will work over the next 5 years to achieve the goals and objectives it has set to address seven strategic issue areas:

- Maintaining high levels of U.S. and worldwide system safety while modernizing and handling increasing demand.
- Building the 21st century aviation system.
- Building system capacity that will minimize delays and allow fair access for all types of aviation.
- Helping improve industry vitality and viability.
- Maintaining U.S. international leadership in creating a safe, efficient global aviation system.
- Ensuring that aviation shoulders its full environmental responsibility in a way that minimizes burden.
- Operating the FAA organization like a business, and as a model Federal workplace.

System Safety

The goals, objectives, and milestones contained in this section reflect the fact that U.S. aviation is extremely safe and secure. The U.S. safety record has not been surpassed by any other country, but improvements can still be made. FAA's most important customers are the American public. FAA will ensure the public's safety and security through the most efficient and effective systems that can be implemented. FAA will offer our assistance to other countries to support aviation safety worldwide.

These goals reflect another important fact, scarce resources. FAA will not sacrifice safety because of resources. Instead, FAA must find ways to maintain and even improve worldwide safety without requiring more resources. That means targeting FAA safety efforts where they will be most effective. It means risk assessment that compares the costs of FAA actions to both itself and the aviation community against the reduced risks of people being hurt and killed in aviation accidents and incidents. It means careful assessment of both the full costs and the benefits of proposed actions.

Finally, these goals tie to the National Performance Review requirements to lessen the regulatory and economic burden on the aviation industry without a loss of safety. FAA assumes its regulatory duties responsibly and in concert with the aviation community.

System Safety

GOAL 1: Safety -- Eliminate accidents and incidents in the aviation system with a strategy that targets the most critical areas.

Objective 1A. Establish agency policy on safety risk assessment and risk management.

1994 Milestones

1. Identify existing safety risk assessment and risk management activities and opportunities in FAA.

2. Develop a plan that will result in a rationale for risk levels, methodology for risk assessment, and the integration of safety risk assessment in agency actions and policies.

1995 - 1996 Milestones

To be determined by 10/94.

1997 - 1998 Milestones

To be determined by 10/94.

Objective 1B. Improve the effectiveness of FAA safety inspection resources through risk assessment and operational indicators.

1994 Milestones

1. Target critical areas through risk assessment and/or data analysis.

1995 - 1996 Milestones

2. Develop indicators for air carrier risk assessments.

3. Deploy Safety Performance Analysis System (SPAS) to inspectors.

4. Develop indicators for repair station risk assessments.

1997 - 1998 Milestones

5. Complete hardware and software network and communications architecture for SPAS.

6. Revise and revalidate SPAS indicators to ensure operational compatibility.

7. Develop indicators for airman risk assessment.

System Safety

Objective 1C. Minimize aging aircraft hazards.

1994 Milestones

1. Publish a Notice of Proposed Rulemaking (NPRM) for "Aging Aircraft Safety Act."
2. Provide corrosion and fatigue training quarterly for airworthiness inspectors and engineers.
3. Prototype a Nondestructive Inspection training program at the FAA Academy for inspectors.
4. Implement the Aging Aircraft Plan.
5. Compile service bulletin and compliance data for the Aging Aircraft Structural Modification Program.

1995 - 1996 Milestones

6. Publish the final rule responsive to the "Aging Aircraft Safety Act."
7. Publish a corrosion prevention NPRM.

1997 - 1998 Milestones

8. Complete study of applicability of robotics for nondestructive inspections.
9. Provide validation facilities for existing and new nondestructive inspection technologies.
10. Publish the final rule on corrosion prevention.

System Safety

Objective 1D. Minimize the risk of collisions and increase the efficiency of aircraft movements on the airport surface.

1994 Milestones

1. Issue surface movement vision document.

2. Develop operational concept and requirements for the 21st century airport.

3. Define surface systems architecture.

4. Issue updated Runway Incursion Plan.

1995 - 1996 Milestones

5. Commence installation of airport Movement Area Safety System (AMASS) at Airport Surface Detection Equipment (ASDE-3) sites.

6. Commission runway status lights at Boston Logan International Airport.

7. Approve surface movement guidance and control plans at all airports operating below 1,200-foot Runway Visual Range (RVR).

8. Establish standards for cockpit moving map displays to enhance situational awareness on the airport surface.

9. Issue design standards for automatic control of airfield lighting.

10. Complete installation of new airport signs on all airports certified under FAR Part 139.

11. Issue solicitation Request for Proposal (RFP) for development of Airport Surface Traffic Automation.

12. Issue RFP for Airport Surface Detection Equipment (ASDE-X) radars.

1997-1998 Milestones

13. Complete installation and commissioning of AMASS at ASDE-3 sites.

System Safety

Objective 1E. Improve FAA oversight of industry performance based on shared use of safety-related data and development of trend indicators.

1994 Milestones

1. Establish leadership role in standardization of digital flight data hardware and software that will enable the aviation community, FAA, and NASA to improve airline safety.

2. Develop FY-96 budget request for flight quality analysis program.

3. Conduct planned Aircraft Certification Systems Evaluation Program (ACSEP) evaluations to increase, in partnership with manufacturing entities, compliance with safety regulations.

1995 - 1996 Milestones

4. Through data analysis, evaluate ACSEP results and make improvements to maintain and enhance compliance to safety regulations.

5. Using statistically valid ACSEP data, identify safety trend areas and focus resources on those areas for safety improvements.

6. Develop with industry a plan to use de-identified digital inflight operational information to monitor aircraft status and operational events.

7. Verify flightcrew training intervals with the use of digital inflight operational information.

1997 - 1998 Milestones

8. Using industry-collected data, identify systemic problems in fleets, pilots, or aircraft.

System Safety

Objective 1F. Encourage the aviation industry to maintain high levels of safety through incentive-based programs.

1994 Milestones

1. Publish guidance material that enables repair stations to initiate internal evaluation programs to improve oversight and quality assurance and meet the proposed new Part 145 rulemaking requirements.

2. In collaboration with industry, identify issues and develop an implementation plan related to improving the consistency between the airworthiness directive process and established airline maintenance programs.

3. Issue an advisory circular related to the Aircraft Certification Systems Evaluation Program (ACSEP), allowing manufacturing entities to pursue internal audit procedures to extend evaluation frequency.

4. Support the implementation of Advanced Qualification Program (AQP) in two major air carriers with periodic status reports.

5. Implement General Aviation Action Plan Coalition recommendations to revitalize existing FAA Accident Prevention Program.

6. Complete test of new prototype compliance methods (Cooperative Compliance Action Team -- CCAT) at Denver Flight Service District Office (FSDO).

1995 - 1996 Milestones

7. Develop the capacity to support the implementation of AQP in seven major air carriers and three commuter air carriers with periodic status reports.

8. Develop guidance material that allows for joint inspection of simulators used by multiple global carriers.

1997 - 1998 Milestones

9. Develop a compliance system that promotes utilization of all available agency options for action that promote voluntary industry compliance with safety regulatory standards.

10. Support the implementation of AQP in 50 percent of all major air carriers and 20 commuter air carriers with periodic status reports.

11. Develop a schedule of implementation of procedures (SIM) document for simulators to allow foreign civil aviation authorities to conduct oversight of simulator devices currently being evaluated with FAA resources.

System Safety

Objective 1G. Reduce the likelihood of weather-related accidents by improving access and delivery of weather information, and by improving technology.

1994 Milestones

1. Ensure that 100 percent of affected large transport category aircraft are equipped with reactive wind shear detecting and predicting equipment. (For predictive equipage, see below.)

2. Increase the capability of on-site weather information to improve forecast and terminal reporting by implementing the Automated Surface Observation Stations (ASOS) Plan.

3. Complete a users' forum and study to improve dissemination of weather information for preflight planning.

1995 - 1996 Milestones

4. Implement wide area differential Global Positioning System (GPS) approaches to selected airports not served already by navaids.

5. Ensure complete full air carrier windshear equipage by finishing predictive installations.

System Safety

Goal 2: Security -- Eliminate security incidents in the aviation system with a strategy that targets the most critical areas.

Objective 2A. Reduce the risk of security incidents by addressing specific vulnerabilities in the aviation system identified through risk assessment and data analysis.

All Year Milestones

1. Increase, as much as legally possible, dialogue with all parties when amending the Federal Aviation Regulations and regulated parties when amending standard security programs.

2. Before requiring improved equipment or procedures, consult with industry and measure costs, current system effectiveness, the level of threat, and the amount risk would be reduced. Explore nonregulatory approaches and cost-reducing tradeoffs and gain industry concurrence where possible.

3. Focus on passenger-carrying large-aircraft operations and reduce unnecessary effects on general aviation and all-cargo and fixed-base operators.

4. Test security realistically, share results quickly with industry to correct problems, and use the data to develop new requirements. Continue to develop more sophisticated and realistic ways of measuring performance.

1994 Milestones

5. Work closely with industry to increase compliance, particularly with access control and challenge regulations, and adjust regulations and policies if necessary.

6. Test screening checkpoints with more realistic simulations of weapons and explosives and focus testing on checkpoints found to be deficient.

7. Adopt and test (through table top exercises) the aviation security contingency plan so that Government and industry can reduce risk if the threat increases, without over-reacting.

8. Aggressively explore the human factors of screening checkpoints and evaluate how screeners can improve performance with improved equipment, training and procedures.

9. In cooperation with industry, demonstrate seven different FAA units that use trace detection or enhanced x-ray techniques to find improvised explosive devices in computers and other electronic items at screening checkpoints and use the data to develop certification standards.

10. In cooperation with industry, develop and test a prototype noninteractive domestic profiling system that can identify passengers and their baggage for intensified screening. Be prepared to implement if the threat increases.

11. Certify explosives' detection systems (EDS) to screen checked baggage. Simulate and, if appropriate, conduct an actual EDS demonstration in cooperation with industry; thoroughly analyze the costs and benefits of deployment and develop practical implementation guidance.

12. Working closely with the industry, identify technical standards, policies and regulations, cost estimates, and an implementation schedule for a universally accepted identification and access media. Criteria for an effective system are to increase security at the lowest possible cost and decrease inconvenience and delays. Pilot test the system.

System Safety

Objective 2A. Reduce the risk of security incidents by addressing specific vulnerabilities in the aviation system identified through risk assessment and data analysis. ***(cont'd)***

1995 - 1996 Milestones

13. Phase in EDS at appropriate locations to screen checked baggage on flights to and from the United States.

14. After full consultation with aircraft and airline industry and independent experts, develop standards for hardened baggage containers that further increase EDS effectiveness and begin introducing them.

15. Working closely with industry, use analyses completed in 1994 to begin phasing in the most cost-effective combination of x-ray and training equipment and procedures including trace detectors, if appropriate, that can improve the screening checkpoint's responsiveness to increased threats.

16. Working closely with industry, use analyses and results of a pilot test to begin implementation of appropriate universally accepted identification and access media that would be fully operational by the year 2000.

1997 - 1998 Milestones

17. Continue EDS deployment and work with industry to adjust security programs to take full advantage of this technology.

18. Continue to phase in x-ray and training technologies and procedures to improve the screening checkpoint.

19. Continue to phase in hardened cargo containers.

20. Working closely with aircraft and equipment manufacturers, complete survivability standards for new aircraft to reduce the risk of catastrophic loss if a bomb detonates in flight.

21. Continue implementation of universally accepted identification and access media to be fully operational by the year 2000.

System Safety

Goal 3: Eliminate accidents and incidents caused by human error.

Objective 3A. Support safety and other agency goals by providing for systematic integration of human performance considerations across all agency functions (e.g., certification, regulation, and management of the National Airspace System (NAS)) during all phases of NAS design, development, and operation.

1994 Milestones

1. Update implementation strategies for the National Plan for Aviation Human Factors.

2. Emphasize and publish human-centered design guidelines for automation in the National Airspace System (NAS).

3. Define human factors requirements in advanced maintenance concepts.

4. Develop human performance criteria for the selection, training, and utilization of the NAS work force.

5. Strengthen ties with DOD to increase leverage of human factors technology transfer.

6. Establish a national data base for aviation human factors research.

7. Complete a plan to develop and validate a process to access, integrate, and analyze human factors data relevant to aviation safety.

8 Develop new medical standards and certification procedures for airmen.

1995 - 1996 Milestones

9. Prioritize the aviation human factors research agenda (Volume II) and institutionalize the implementation of the National Plan for Aviation Human Factors.

10. Expand the national data base for aviation human factors research as an international coordination mechanism.

11. Publish human-centered design guidelines for automation in the NAS.

12. Prototype and demonstrate human factors interfaces in advanced maintenance concepts.

13. Conduct research in aging factors related to pilot performance.

14. Implement new medical standards and certification procedures for airmen.

1997 - 1998 Milestones

15. Demonstrate the capability to quantify the relationship between aircraft and crew performance using expanded flight recorded data.

16. Update performance-based guidelines for technologically advanced air and ground systems.

17. Provide updated information on the relationship between performance and physiological factors such as age, fatigue, and drugs.

18. Provide updated information on the efficacy of training methods, devices, and simulators.

19. Develop and test age related pilot screening protocol.

21st Century Aviation System

The 21st century will offer the world the opportunity for a seamless, truly global air traffic management system. The FAA realizes it must begin now to capitalize and implement the needed technology for this system, as well as assist other countries through ongoing cooperation and partnerships.

The goal in this section reflects the FAA Operational Concept (See the appendix) for implementation of future air traffic management systems and the decommissioning of obsolete systems. We recognize the importance of the human element in the aviation system and strive to accomplish aviation harmonization globally.

21st Century Aviation System

GOAL 4: Implement an operational concept for the future that matches new technology and procedures with user needs.

Objective 4A. Refine and implement the FAA Operational Concept.

1994 Milestones:

1. Achieve agreement with the users on the major policy decisions that must be made and establish initial policies in as many areas as possible, including:

- The integration of air traffic control (ATC) automation efforts;
- The proper balance between ATC at the scene and traffic flow management;
- The most efficient information flow and communications interfaces;
- The future utilization of the Global Navigation Satellite System (GNSS) and the roles it is expected to play; and
- The ingredients of an Airport Surface Traffic Management System.

Begin to implement key elements of the FAA programs that are traceable to these policy agreements.

2. Complete the conceptual design and develop implementation approaches for an aviation preflight weather and flight plan filing system based upon projected technology general design that matches FAA's operational concept.

3. Achieve agreement with the users on FAA's automation policies and priorities that match the FAA's operational description and focus directly on achievement of early benefits and products to the user. Minimize competitive efforts recognizing that planning risk needs to be shared by all elements of the community.

4. Complete community definition of digital communications system to support domestic and oceanic ATC, Differential Global Positioning System (DGPS), and key user corporate communications activities (RTCA Task Force 2) and move rapidly toward full implementation.

1995 - 1996 Milestones

5. Complete the final definition of all remaining system issues and ensure that definitive policy answers exist for 90 percent or more of the agreed-to issues, including:

- The best balance of aircraft and ground systems in the future cooperative air traffic management (ATM) system;
- The degree GNSS/Automatic Dependent Surveillance (ADS) can substitute for primary or Secondary Surveillance Radar (SSR) in en route and terminal airspace; and
- The utilization of elements of integrated FAA/National Weather Service (NWS) weather modernization programs and their interrelationships with ATM technologies.

6. Develop and implement a National Airport System Plan which matches the operational concept and places priority where real improvements can be made.

7. Ensure that FAA's budgets and program priorities are traceable to key elements of the operational concept and ensure that internal program approval processes (e.g. mission need approvals) are correlated to major initiatives and decisions in the operational concept.

Objective 4A. Refine and implement the FAA Operational Concept. *(cont'd)*

1995 - 1996 Milestones *(cont'd)*

8. Develop cooperatively with the aviation user community an initial facilities decommissioning plan or "phase out strategy" for ground-based navigation and surveillance aids and other key elements of the current ATC infrastructure, coordinated with the introduction of communications, navigation, and surveillance (CNS) capabilities.

1997 - 1998 Milestones

9. Begin implementation of ground-system phase out plan (En route Radars, VHF Omnidirectional Ranges (VOR), etc.)

10. Complete technical definition of the International Civil Aviation Organization (ICAO) GNSS System for world-wide implementation.

System Capacity

This issue concerns not only expanding capacity but also the measurement of capacity in the airspace system. FAA recognizes the immediate need to define national capacity indicators that are of value for the industry and the need to increase capacity wherever possible. FAA must act quickly to mitigate capacity constraints as well as to plan for future demand. Both airspace and airport capacity are addressed. Programs for satellites, weather, automation, communications, and human factors will improve airspace capacity. New airports and runways, improved airport technologies that enhance capacity, and efficient use of capacity will assist the airport system. Access for all aviation users to both airports and airspace and the FAA's response to Airline Commission recommendations and Executive Orders are also critical elements which have been incorporated into the following goals.

System Capacity

GOAL 5: Meet system capacity needs with long-term solutions and real-time resolutions of today's targeted problems.

OBJECTIVE 5A. System Capacity Measurement -- Identify and define, in concert with the aviation community, standards of success and national capacity indicators which will better target areas for reducing delays and increasing capacity.

1994 Milestones

1. Convene a joint aviation community and Government task force to identify and define national capacity indicators and measures of success.

1995 - 1996 Milestones

2. Publish national capacity indicators with definitions.

3. Develop a dynamic data base and tracking system for national capacity indicators.

1997 - 1998 Milestones

4. Review and analyze national capacity indicators to determine if user access and capacity needs are being met.

Objective 5B. Near-Term Capacity Initiatives -- Reduce constraints/limitations at the top 40 delay/ operationally impacted airports by timely implementation of system enhancements and capacity increasing technologies and procedures.

1994 Milestones

1. Improve operations at top 20 delay-impacted airports.

2. Identify and improve the operations at 20 other operationally impacted airports prior to significant delay problems developing.

3. Implement Converging Runway Display Aid (CRDA) functions at all of the eligible Automated Radar Terminal System (ARTS) IIIA airports where capacity gains can be achieved.

4. Identify additional sites as candidates for Precision Runway Monitor (PRM).

5. Complete testing of the feasibility of 3,000 foot minimum separation between parallel runways utilizing PRM.

6. Continue testing of the feasibility of reducing minimum separation to 4,000 feet between runways utilizing the Final Monitor Aid (FMA).

7. Complete testing of limited airborne holding procedures at two test sites (Nashville and Houston) and expand to two larger demand sites for further evaluation.

Objective 5B. Near-Term Capacity Initiatives -- Reduce constraints/limitations at the top 40 delay/ operationally impacted airports by timely implementation of system enhancements and capacity increasing technologies and procedures. ***(cont'd)***

1995 - 1996 Milestones

8. Commence implementation of system enhancements and capacity increasing technologies and procedures at the 20 operationally impacted airports identified above.

9. Install PRMs at additional sites dependent on results of feasibility testing of 3,000 feet separation completed above.

10. Implement limited airborne holding procedures where capacity benefits can be realized.

11. Implement approaches and procedures for resolution and improvement of system inefficiencies identified in the National Airspace Analysis.

12. Commission the Traffic Management Advisor and Descent Advisor functions of the Terminal Radar Approach Control (TRACON) Center Automation System (CTAS) at the Denver Air Route Traffic Control Center (ARTCC) to provide fuel efficiency and information on sequencing.

13. Commission the Final Approach Spacing Tool function of CTAS at Dallas/Fort Worth to provide the controller with advisories on optimal approach/sequence information.

1997 - 1998 Milestones

14. Install PRMs at additional sites dependent on results of feasibility testing of 3,000 feet separation between parallel runways.

15. Provide prediction modeling capability and enhance the traffic manager's decision making process by implementing the Operational Traffic Flow Planning Tool within the Enhanced Traffic Management System (ETMS).

System Capacity

Objective 5C. Air Traffic Control (ATC) Automation -- Improve the automated infrastructure through replacement and enhancement in order to provide the platform for capacity-enhancing technologies and procedures.

1994 Milestones

1. Install the Traffic Management Advisor (TMA) at Denver ARTCC for evaluation in place of the Host arrival sequencing program.

2. Install Voice Switching and Control System (VSCS) equipment at Seattle ARTCC.

1995 - 1996 Milestones

3. Commission VSCS in Seattle ARTCC (first site) plus 18 additional sites.

4. Commission Initial Sector Suite System (ISSS) in Seattle and Salt Lake City ARTCCs.

5. Commission Tower Control Computer Complex (TCCC) Type 3 at first site.

6. Complete joint FAA/ Department of Defense (DOD) operational evaluation of Terminal Advanced Automation at Southern California TRACON.

7. Commission Descent Advisor (DA) and Traffic Management Advisor (TMA) to provide fuel-efficient, top-of-descent and sequencing information at Denver ARTCC. Commission Final Approach Spacing Tool (FAST) at Dallas/Fort Worth, and Commission TMA at New York TRACON.

8. Provide Traffic Management Coordinator (TMC) and Supervisors with early Automated En Route Air Traffic Control (AERA).

9. Provide sector controllers early AERA problem detection and resolution aids.

1997 - 1998 Milestones

10. Commission TCCC at 75 sites.

11. Commission VSCS at five remaining sites.

12. Commission the Initial Sector Suite System (ISSS) at 19 remaining sites.

13. Commission the Terminal Air Surveillance System (TAAS) Metroplex Control Facility (MCF) at Southern California TRACON.

14. Commission TMA and FAST at New York TRACON.

System Capacity

Objective 5D. Traffic Flow Management -- Create the necessary capabilities to permit the ATC system to ensure safe separation while imposing minimum constraints on system users and aircraft movement.

1994 Milestones

1. Expand existing 56 city pairs in the National Route Program by 21 city pairs.

2. Initiate a National Airspace Analysis (NAA) to identify system inefficiencies.

3. Implement the Ground Stop Tool of the Automated Demand Resolution (ADR) in the Air Traffic Control System Command Center (ATCSCC) to assess demand and capacity imbalances.

4. Implement Departure Sequencing Engineering Development Model (DSEDM) in the Los Angeles Basin area.

5. Relocate the ATCSCC.

1995 - 1996 Milestones

6. Develop approaches for resolution and improvement of system inefficiencies identified in the NAA.

7. Enhance ATCSCC functions by expanding facility-to-facility communications and increasing focus on capacity utilization.

8. Incorporate dynamic user flight intention data in the Enhanced Traffic Management System (ETMS).

1997 - 1998 Milestones

9. Implement Operational Traffic Flow Planning (OTFP) to provide prediction and modeling capability and enhance traffic manager's decision making process.

10. Implement Special Airspace Management System/Military Airspace Management System (SAMS/MAMS) to provide real time Special Use Airspace information to ETMS for routing and airspace capacity utilization.

11. Implement Sector Design and Analysis Tool (SDAT) to provide facilities with the capability to make airspace changes necessary to meet overall system needs.

System Capacity

Objective 5E. Oceanic Control -- Change, in concert with the international aviation community, oceanic air traffic control from its current non-radar control to a tactical control environment much like the current domestic radar control.

1994 Milestones

1. Replace the current Flight Data Input Output (FDIO) interface to the Oceanic Data Automation Process System (ODAPS) with the Telecommunications Processor (TP) at Oakland ARTCC.

2. Replace existing Planned View Display (PVD) with Interim Situation Display (ISD) at Oakland ARTCC.

3. Achieve agreement with user community on implementation of two-way data link.

1995 - 1996 Milestones

4. Implement Oceanic Data Link (ODL) in Oakland ARTCC.

5. Provide pre-coordinated dynamic rerouting capability.

6. Provide Automatic Dependent Surveillance (ADS) way-point reporting capability at the Oakland and New York ARTCCs.

7. Develop and implement procedures to reduce longitudinal separation from 15 minutes (10 minutes with mach speed) to 5 minutes during climb/descent utilizing the Global Positioning System (GPS) in the Pacific.

8. Initiate a limited demonstration of participatory separation utilizing Traffic Alert and Collision Avoidance System (TCAS)/Airborne Collision Avoidance System (ACAS). [Participatory separation occurs when the pilots of two aircraft request the procedure to maintain separation of their aircraft using only their own onboard systems.]

1997 - 1998 Milestones

9. Develop and implement procedures to reduce vertical separation minimums in the North Atlantic from 2,000 feet to 1,000 feet above a flight level of 29,000 ft. (FL290) .

10. Develop and implement procedures to reduce lateral separation minimums in the Pacific from 100 miles to 30 miles.

11. Develop and implement procedures to reduce longitudinal separation in the Atlantic from 10 minutes to 5 minutes and lateral separation from 60 miles to 30 miles utilizing GPS .

System Capacity

Objective 5F. Weather Forecasting, Detection, and Communication -- Reduce the capacity-impacting consequences of weather phenomena by improved weather forecasts and increased accuracy, resolution, and dissemination of observations on the ground and in the air.

1994 Milestones

1. Conduct National Aviation Weather Users' Forum to develop federal/industry/aviation community consensus on needs, priorities, and provision of services and consider implementation of recommendations (late 1993).

2. Complete integration of Terminal Doppler Weather Radar and Low Level Wind Shear Alert System (LLWAS six sensor) at airports with both systems installed.

3. Add capability to the Meteorologist Weather Processor (MWP) for the mosaicing and display of WSR-88D weather products at the Center Weather Service Unit.

4. Complete transition plan for phasing-out human weather observers at Automated Surface Observing System (ASOS) sites.

1995 - 1996 Milestones

5. Deploy Data Link Processor, Phase 2 (DLP-2), which will disseminate alphanumeric weather products, including warnings, directly to the cockpit.

6. Complete integration of Terminal Doppler Weather Radar and Low Level Wind Shear Alert Systems (LLWAS enhanced) at airports with both systems installed.

1997 - 1998 Milestones

7. Provide Aviation Weather Product Generator (AWPG) products throughout the NAS which will integrate data from a high resolution four dimensional data base and automatically generate tailored aviation products suitable for operational use by pilots and controllers without meteorologist interpretation.

8. Provide high-resolution Doppler weather radar products directly to the controllers' displays.

System Capacity

Objective 5G. Communication, Navigation, and Surveillance (CNS), and Satellite Navigation -- Implement CNS and satellite navigation capabilities through an aggressive Industry/Government partnership that achieves user benefits in all phases of aviation operations.

1994 Milestones

1. Complete definition of Data Link System to support Differential GPS and other CNS/ATM operations. Achieve early approval of 1030 MHz for DGPS transmission (per draft RTCA report and industry endorsement).

2. Approve early use of GPS and DGPS for private-use Category I approach capabilities (CAT-I) through a variety of means, e.g., Airport Improvement Project (AIP) eligibility for local differential, airline purchase of Local Area DGPS (LDGPS).

3. Support early approval of GPS operations as a supplemental navigation capability domestically and over the oceans.

4. Award contract for development of CAT II/III satellite-based capability.

1995 - 1996 Milestones

5. Complete Minimum Operational Performance Standards (MOPS) for GPS as a sole means of navigation in domestic airspace and begin use of GPS in this role in both domestic and oceanic areas.

6. Begin operational use of Oceanic ATC procedures based upon GPS and two-way data link operations to achieve real benefits for equipped users in oceanic airspace. Implement reduced separation standards based upon GPS and ADS operations.

7. Implement Wide Area Augmentation System for GPS to publicize Category I operations.

8. Determine feasibility of GPS for CAT II and CAT III operations and formulate U.S. policy of Instrument Landing System (ILS)/Microwave Landing Service (MLS)/GPS in support of worldwide transition planning.

9. Develop new GPS instrument approach procedures.

1997- 1998 Milestones

10. Implement GPS-based Automated Dependent Surveillance on the airport surface.

11. Implement GPS-based ADS surveillance capabilities into en route and terminal automation systems.

12. Approve GPS-based CAT I operations as a sole means in the United States.

13. Establish reduced oceanic separation standards based on GPS and ADS.

14. Complete the development of GPS-augmented Collision Avoidance Systems (TCAS IV) and establish MOPS for system implementation.

System Capacity

Objective 5H. Communications/Data Link -- Provide a cost-effective communications infrastructure to enhance the safety and effectiveness of air traffic management operations.

1994 Milestones

1. Expand data link delivery of pre-departure clearances to 30 additional airports.

2. Provide automatic terminal information service (ATIS) via data link at 60 airports.

3. Establish data link system architecture and system implementation plan.

4. Establish FAA/industry consortium to harmonize standards and demonstrate equipment for the Aeronautical Telecommunications Network (ATN).

5. Achieve agreement with user community on two-way data link.

1995 - 1996 Milestones

6. Complete commissioning of Voice Switching and Control System (VSCS) at 18 sites.

7. Establish two-way satellite-based data link communications capability in oceanic airspace.

8. Establish Automatic Dependent Surveillance (ADS) capability in oceanic airspace.

9. Define data link to support GPS-based ADS capability on the airport surface.

10. Conduct flight trials of data-link-based traffic and weather information services for general aviation.

11. Install initial Enhanced Terminal Voice Switching (ETVS) systems at terminal facilities supporting end-to-end digital voice.

1997 - 1998 Milestones

12. Complete commissioning of VSCS at five remaining sites.

13. Implement the ATN.

14. Establish two-way data link communications capability throughout domestic en route and terminal airspace.

15. Implement data link for GPS-based ADS capability on the airport surface.

16. Complete ETVS system deployments including MCF facilities.

System Capacity

Objective 5I. Airport Planning -- Improve the national airport planning process by: adding a method for prioritizing projects; linking the national plan to the grant program through an Airports Capital Improvement Program (CIP); and developing the Airports Research, Engineering, and Development (R,E&D) program.

1994 Milestones

1. Complete Airport Capacity Studies at Minneapolis and Dallas/Fort Worth.

2. Complete Terminal Airspace Study of the San Bernardino/ Ontario area.

3. Start development of airport system performance measures.

4. Complete development of near-term, mid-term, and long-term RE&D plans.

5. Further develop Airports CIP and its relationship to Airports National Plan of Integrated Airport Systems (NPIAS).

6. Determine the impact of new aircraft on airport design requirements.

7. Establish a link between airports and the intermodal transportation system.

8. Continue the airport capacity design team activities and develop a monitoring and tracking system for implementation of capacity and delay task force recommendations.

9. Continue to strongly support the planning capacity/delay reduction efforts of local airports.

10. Convene an FAA/user workshop to identify general aviation NAS access issues and create a process for specific resolution. Create a national airports policy which maximizes the potential of general aviation to the Nation's air transportation infrastructure.

1995 - 1996 Milestones

11. Complete development of airport system performance measures.

12. Continue development of an Airports CIP, which will link the NPIAS to the grant program, and include a method for prioritizing projects.

13. Continue the use of Airports RE&D funds to support the study of airport planning issues.

14. Study the impact of new aircraft on airport design requirements.

15. Develop guidance to reduce landside airport congestion and improve airport access in conjunction with other DOT modes.

System Capacity

Objective 5I. Airport Planning -- Improve the national airport planning process by: adding a method for prioritizing projects; linking the national plan to the grant program through an Airports Capital Improvement Program (CIP); and developing the Airports Research, Engineering, and Development (R,E&D) program. ***(cont'd)***

1997 - 1998 Milestones

16. Complete development of and implement the Airports CIP. Review priority of Airport Improvement Program (AIP) projects as part of the Airports CIP.

17. Complete the development of standards on the impact of new aircraft on airport design requirements.

18. Update, test, and validate airport runway pavement design standards to encompass newer aircraft design.

Objective 5J. Human Factors -- Implement new automation technologies and associated functional improvements in a manner that fully accounts for the proper role of people in the system.

1994 Milestones

1. Adjust approach to Advanced Automation System (AAS) and other key automation projects to take full advantage of "Open System" designs and evolutionary strategies utilizing human factor elements.

2. Complete strategic definition of relation between Traffic Management planning responsibilities, human factor elements, and "real-time" ATC responsibilities. Make sure these agreements are fully reflected in ongoing programs and plans for ground and cockpit automation.

3. Complete full-scale prototypes of CTAS/Traffic Management Advisor (TMA) and begin operational implementation, accounting for the human impact.

4. Achieve agreements with the users on the scope and extent of early/initial AERA functionality in a manner which allows first implementation of this capability immediately after ISSS commissioning activities for early AERA and Terminal ATC Automation (TATCA) capabilities to connect with ISSS implementation.

5. Complete definition of Airport Surface Automation functional requirements considering human factors data, in cooperation with airport operators and other ATC system users.

Objective 5J. Human Factors -- Implement new automation technologies and associated functional improvements in a manner that fully accounts for the proper role of people in the system. *(cont'd)*

1995 - 1996 Milestones

6. Conduct simulations examining human interface and procedural issues among AERA, CTAS, TAAS, and Aeronautical Data Link (ADL) systems.

7. Commission first ISSS at Seattle by October 1996 and commission first package of early AERA services (including data link) soon thereafter.

8. Commission first Terminal Advanced Automation System (TAAS I) at Southern California TRACON.

9. Commission full CTAS functionality at selected terminal and en route sites, i.e., Traffic Management (TM), Descent Advisor (DA), and the Final Approach Spacing Tool (FAST).

10. Conduct full-scale operational demonstration of Airport Surface Traffic Automation (ASTA) surveillance and automation functionality on airport surface operations at selected airports, analyzing human factor elements therein.

1997 - 1998 Milestones

11. Complete ISSS implementation at all 20 domestic sights. Commission TAAS 3, and commission early AERA capability at all domestic centers.

12. Provide initial gate-to-gate ATC automation services based on AAS, ASTA, and DGPS, and human factors considerations fully integrated into Airspace Automation Operations.

13. Commission nonconsolidated TRACON automation functions, fully considering human factor elements.

Industry Vitality

A strong, safe, and secure aviation industry is vital to the U.S. economy. While FAA alone cannot make aviation vital, FAA can indirectly influence industry performance. FAA can ensure that its own regulations impose minimal burden on the industry, while achieving public goals. FAA can and must work to harmonize regulations worldwide to provide a level playing field for all aviation. Steps can be taken to promote U.S. aviation products and services abroad and support beneficial aviation initiatives at home. FAA can focus its attention on the various segments of the aviation community to ensure that each achieves its full potential.

Industry Vitality

GOAL 6: Promote U.S. aviation and U.S. preeminence in the global aviation system.

Objective 6A. Promote international harmonization through cooperative efforts to align certification, operational, and maintenance standards, practices, and procedures.

1994 Milestones

1. Complete initial harmonization of Small Airplane Regulations (Federal Aviation Regulation (FAR) Part 23 and Joint Aviation Requirement (JAR) Part 23).

2. Complete selected items from the Flight and Loads areas of the Transport Airplane Regulations (FAR Part 25 and JAR Part 25) as specified in the Joint Airworthiness Authorities (JAA)/FAA Harmonization Work Program (2nd Ed.).

3. Develop training programs for foreign airworthiness authorities on Maintenance Review Board (MRB) process.

4. Update the existing bilateral agreement model to include implementation of procedures for foreign repair stations.

1995 - 1996 Milestones

5. Resolve final differences between JAR 145 and FAR 145 with European community.

6. Complete initial international agreement(s) organizing the International Maintenance Policy Board.

7. Harmonize selected items of the Engine Regulations (FAR Part 33 and JAR Part E) and Transport Airplane Regulations (FAR Part 25 and JAR Part 25) as specified in JAA/FAA Harmonization Work Program (2nd ed.).

1997 - 1998 Milestones

8. Complete harmonization of Rotorcraft Regulations (FAR Parts 27, 29 and JAR Parts 27, 29).

9. Harmonize all items of the Engine Regulations (FAR Part 33 and JAR Part E) as specified in JAA/FAA Harmonization Work Program (2nd ed.) and all selected items in Transport Airplane Regulations (FAR Part 25 and JAR Part 25).

10. Develop operational harmonization model with selected countries in Central and South America.

11. Lead ICAO effort in revising international airport pavement classification standards for new large aircraft.

Industry Vitality

GOAL 7: Increase, with a sense of urgency, the efficiency of the air transportation system.

Objective 7A. Implement a comprehensive, agencywide general aviation program that demonstrates FAA's commitment to preserve and revitalize the general aviation industry.

1994 Milestones

1. Complete initial regulatory harmonization of FAR 23 and JAR 23.

2. Publish the action plans developed in response to the general aviation community's recommendations made at the 1993 FAA/General Aviation Conference. Implement selected action plan objectives.

3. Support the President's Goals 2000: Educate America Act of 1993 and in cooperation with industry and educational institutions, develop an educational strategic plan that supports revitalization of the general aviation industry.

4. Publish for public comment, the industry draft of Advisory Circular 21.XX to improve standardization of field approval and issuance of Supplemental Type Certificates (STC).

5. Complete the intermittent combustion engine and propeller certification simplification programs and extend these programs to avionics.

6. Complete and release the Advisory Circular on Primary Category Aircraft owner maintenance.

7. Publish the rulemaking proposals from the Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA) which seek to reduce the cost of airman medical certification while maintaining safety.

8. Convene an ad hoc team to consider current petition and draft final rule on aircraft annual inspection requirements seeking to reduce owner costs while maintaining safety.

9. Convene an FAA/user workshop to identify ways to increase general aviation parts availability, identify alternate sources of parts, streamline parts approval procedures, and maintain safety levels.

1995 - 1996 Milestones

10. Establish the certification policies to meet the requirements related to new technology developments in general aviation aircraft.

11. Using customer feedback, evaluate the impact of the FAA Plan for General Aviation and develop redirection as required.

12. Initiate new airmen training and certification policies for high performance aircraft.

1997 - 1998 Milestones

13. Complete an evaluation of the impact of FAA's 1994-1998 plan for the revitalization of general aviation and, if necessary, develop new initiatives for the next five years.

Industry Vitality

Objective 7B. Revitalize the regulatory process, using industry and public input, to expedite rulemaking development and reduce economic burden while maintaining the highest level of safety and environmental protection.

1994 Milestones

1. Undertake a regulatory review, in close consultation with industry and other interested parties, to identify each industry group's top three priorities to eliminate or amend existing regulations to reduce regulatory burdens and still remain consistent with safety and security considerations.

2. Examine internal review and processing procedures to determine how those procedures can be improved and streamlined.

3. Develop a process, consistent with resources and regulatory priorities, to review periodically existing significant regulations and determine whether such regulations should be modified or eliminated.

4. Develop a system for tracking the cumulative cost burden that newly enacted rules place on industry.

5. Establish a process that will enable members of the public to submit petitions for rulemaking through properly formatted documents, including all required analyses, to expedite action on ideas submitted by the general public.

6. Review current format of FAA advisory circulars to determine whether there is a need to better distinguish between technical information and materials meant to be solely advisory and those which contain standards required for grant projects and to clarify the advisory nature of these publications where necessary when material could be construed to be regulatory in nature.

7. Working with the Department of Transportation, initiate a reevaluation of the high-density rule for allocating slots at key congested airports.

1995 - 1996 Milestones

8. Establish, where appropriate, a consensual mechanism for developing regulations.

9. Identify requirements and begin implementation of an integrated rulemaking information system that will consider such things as public access, regulatory archives, and automated text transfer for publication purposes.

10. Complete the study to reevaluate the high-density rule for allocating slots at key congested airports.

International Leadership

FAA is in an excellent position to promote U.S. aviation products and services in the international marketplace. Through expertise in technology, communications, standards, and practices, FAA can assist the global network in achieving the full potential of future aviation systems by collaborating and cooperating with other governments.

Harmonization of systems and standards holds the key to future success of all aviation systems. As the industry becomes even more internationalized, FAA must be positioned and ready to lead the internationalization efforts to maintain safety, security, efficiency, and effectiveness.

International Leadership

Goal 8: Achieve, through U.S. leadership, international standardization of a safe and efficient global air transportation system.

Objective 8A. Increase the global market share of U.S. aviation products and services through joint technology and development, promotion and education, and advancement of U.S. standards and aerospace R&D investments.

1994 Milestones

1. Encourage standards that provide fair competition for U.S. products in international markets and work with the U.S. aviation industry to identify barriers that limit the ability of U.S. products and services to compete abroad.

2. Seek input from the U.S. aviation industry in defining the FAA/U.S. policy for the promotion of U.S. products and services abroad.

3. Provide supplemental technical assistance, training, and information to countries implementing U.S. standards and systems.

4. Promote a strong, unified Government approach in support of exports of U.S. aviation products and services.

5. Develop a master plan, with the aviation community, that defines FAA involvement in international air shows, conferences, and seminars to support the sale of U.S. aviation products and services abroad.

6. Develop an implementation plan for promoting aviation education worldwide.

1995 -- 1996 Milestones

7. Develop products and services to support U.S. aviation in marketing abroad.

International Leadership

Objective 8B. Provide world leadership in aviation system development by creating the most advanced air transportation system domestically and collaborating with the international community to establish a safe, efficient, and standardized global air transportation system.

1994 Milestones

1. Develop a comprehensive plan for working with Latin American and Caribbean countries to address operational efficiency and safety issues.

2. Conduct FAA "shadow" certifications of one large and one small "westernized" Russian aircraft, as the primary means to assess Russia's aircraft certification system. Assess Russian standards and regulatory, production, surveillance, and airworthiness systems.

3. Develop a comprehensive plan for working with countries in the Asia Pacific Region to address operational efficiency and safety issues.

1995 - 1996 Milestones

4. Increase the capacity of initial North America and Asia-Pacific air routes that overfly the Russian Far East, and open more routes to realize cost savings to users.

5. Expand Automatic Dependent Surveillance (ADS) System engineering trials.

6. Develop a comprehensive plan for working with Middle Eastern countries to address operational efficiency and safety issues.

7. Establish and maintain a presence in Sub-Sahara Africa to learn of and respond to special needs and opportunities and to facilitate regional participation in the evolving global system.

8. Identify all international organizations that have a significant impact on aviation-related activities and review the effectiveness of U.S. interactions with these organizations.

International Leadership

Objective 8C. Reduce the cost of operating in the global aviation system by harmonizing rules and procedures, reducing operational barriers and system limitations, and implementing new technologies.

1994 Milestones

1. Develop a simplified bilateral aviation agreement which will facilitate the implementation of technical programs between the U.S. and other civil aviation authorities.

2. Work with other U.S. agencies to help eliminate capacity restrictions for scheduled and non-scheduled U.S. operators at operationally constrained international airports.

3. Cooperate with other nations to identify aviation system improvements that will lead to increased airside and landside capacity.

4. Develop a U.S. strategy for worldwide adoption of the Global Navigation Satellite System.

5. Participate with Mexico and Canada in the publication of the North American Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) implementation plan.

6. Encourage U.S. (Government and non government) adherence to international radio regulations and related ICAO standards protecting aeronautical spectrum allocation.

7. Promote and support radio frequency reallocation and regulatory changes aimed at satisfying future CNS safety service requirements, including capacity, availability, and integrity.

8. Conduct joint research and information exchanges which lead to expedited development of technology, elimination of duplicate efforts, reduced costs, and standardization.

9. Continue to work toward achieving a limited U.S. and Russia Bilateral Airworthiness Agreement (BAA) covering light aircraft.

10. Take a leadership role with the International Civil Aviation Organization to develop a multilateral approach to substance abuse prevention.

1995 - 1996 Milestones

11. Aggressively pursue the worldwide adoption of Required Navigation Performance (RNP) values.

12. Conduct GPS demonstrations in Latin America and in the Asia Pacific region.

13. Develop an open systems architecture approach to the development and procurement of airspace management equipment in order to accommodate the varied users in the emerging ATM system.

International Leadership

Objective 8D. Reduce accidents, increase security, and increase accident prevention measures worldwide by providing technical assistance and participating in cooperative efforts (see System Safety goal).

1994 Milestones

1. Establish a comprehensive training data base which includes information about aviation-related training and education offered by FAA, private schools, universities, and industry throughout the United States.

2. Offer English language specialized courses and seminars that are co-sponsored by U.S. industry to foreign aviation officials.

3. Identify requirements for FAA training to supplement industry training in support of U.S. equipment sales (e.g., air surveillance radar (ASR)-9, Mode S).

4. Obtain a legislative mandate allowing the FAA to provide nonreimbursable training to foreign aviation officials.

5. Offer specialized training to foreign aviation officials (e.g., ATC training in Morocco, Tunisia, Spain, India) as an established ongoing part of the FAA training program.

6. Whenever requested, provide technical leadership and assistance to the international aviation community on matters relating to Airway Facilities functions and expertise.

1995 - 1996 Milestones

7. Develop an English-language aircraft certification instruction to accommodate foreign student participation.

8. Make a broad range of course materials available to foreign countries through a catalog distribution of computer-based instruction (CBI) courses.

9. Obtain international support for training for a CNS/ATM transition, sharing the FAA approach through the ICAO TRAINAIR network.

International Leadership

Objective 8E. Encourage International Civil Aviation Organization (ICAO) reforms, so that the organization will be better equipped to operate efficiently and effectively in today's dynamic environment.

1994 Milestones

1. Participate in the International Civil Aviation Organization (ICAO) strategic action planning process by encouraging administrative reforms to the current structure of the organization and, through the Interagency Group on International Aviation (IGIA) processes, submit a U.S. position paper to ICAO recommending administrative changes to the organization.

2. Identify administrative demands placed on the ICAO Secretariat that are not cost-effective or that do not directly support the ICAO charter.

3. Work with members of IGIA to develop specific ICAO meeting reform recommendations. Solicit support from other ICAO Member States for U.S. meeting reform recommendations.

4. Identify elements of the ICAO work program that could be handled best within ICAO regions.

5. Present proposal to fill the gap created by late U.S. funding for ICAO.

1995 - 1996 Milestones

6. Submit a paper to ICAO with recommendations regarding the results of the operational objectives listed above.

7. Gather support from other governments to begin making reforms at ICAO.

8. Recommend modifications to current ICAO administrative procedures (e.g., document reproduction, translation, etc.), including state-of-the-art software/hardware that could streamline the Secretariat's workload.

9. Obtain U.S. Government support for providing funding for ICAO on a timely basis.

International Leadership

Objective 8F. Ensure that foreign air carriers which operate to or from the U.S. are in compliance with the minimum safety standards identified in the ICAO annexes.

1994 Milestones

1. Accomplish 70 percent of assessments of all civil aviation authorities who have certificated foreign air carriers that operate to or from the United States.

2. Analyze inspection and assessment findings to target specific air carriers which will receive additional inspections.

3. Revise the FAA Foreign Air Carrier Security Program to include new security procedures for cargo security and achieve complete acceptance of the program.

4. Conduct three safety seminars for foreign air carriers and civil aviation authorities using materials produced for FAA's Partnership 21 Initiative.

1995 - 1996 Milestones

5. Complete the assessment of all civil aviation authorities who have certificated foreign air carriers that operate to or from the United States.

6. Initiate discussions with ICAO concerning the development of initiatives designed to promote member countries' commitment to implement minimum ICAO safety standards. Encourage the development of regional oversight authorities.

7. Continue efforts in ICAO and with the "Group of Seven" (G-7) nations to increase the minimum security standards required for airports and air carriers.

Environmental Responsibility

The aviation industry must be responsible for how it affects the environment. FAA may, however, intercede when unique circumstances or the burden of proposed restrictions on aviation is disproportionate to the benefits for citizens. FAA must assume an advocacy role for both the environment and the industry. In addition, FAA should identify environmental problems early and work out reasonable solutions with industry before they become major national problems.

Environmental Responsibility

Goal 9: Provide strong leadership in mitigating the adverse environmental impact of aviation.

Objective 9A. Reduce the impact of aircraft noise by 80 percent (based upon population) by 2000, through an optimal mix of new aircraft certification standards, operational procedures, land use initiatives, and technology.

1994 Milestones:

1. Administer the Stage 3 transition rules aggressively, on a national basis, ensuring that all Stage 2 operations cease at U.S. airports by December 31, 1999, and that waiver requests are minimized at intermediate milestones of December 31, 1994 and December 31, 1996.

2. Identify and propose policies and programs to achieve and maintain compatible land use in noise-impacted areas at U.S. airports by guiding and supporting the R&D Study Group to provide specific policy and program recommendations by the end of 1994, and implementing recommendations through the regulatory process by January 1996.

3. Support the FAA/NASA Subsonic Noise Reduction Research Program (1994-1999) and identify technologies which could reduce uninstalled engine noise levels of future subsonic airplanes by 3 to 5 decibels (dB) by 1996 and overall airplane noise levels by 8 to 10 dB by 2000.

4. Work with local airports and communities to encourage the development of effective local programs to manage noise while avoiding local operating restrictions that interfere with the Nation's phase-out of Stage 2 aircraft.

5. Convene a team of manufacturers, FAA, NASA, and others to facilitate general aviation noise reduction research and implementation of noise technology.

1995 - 1996 Milestones

6. Evaluate by 1996 the FAA/NASA research effort to determine if the stringency of FAR Part 36 aircraft noise certification standards should be increased.

7. Evaluate and initiate indicated revisions of FAR Part 36 aircraft noise certification procedures by 1996, considering actions of ICAO and JAA, to increase the relevance of certification to community noise exposure, to allow for improved aircraft designs, and to reduce regulatory burden.

1997 - 1998 Milestones

8. Provide a self-operated, turnkey system of integrated noise methodologies, data bases, and assessment tools to Air Traffic, Airports, and system users, including all FAA Regions and Centers by 1998.

9. Develop by 1998 new aircraft operating procedures for the most noise-impacted airports that will use emerging automated guidance and navigation technologies to reduce noise 20 percent beyond that anticipated with the phase out of Stage 2 airplanes.

10. Design an aircraft noise impact model that will assess community responses to both nighttime aircraft noise and the changed noise environment by 1998.

Environmental Responsibility

Objective 9B. Define and minimize the impact of aircraft emissions, through an optimal mix of new aircraft certification standards, operational procedures, and technology.

1994 Milestone

1. Initiate and participate in a joint FAA/NASA research program to understand the impact of aviation on the atmosphere and the degree of regulation necessary to minimize those impacts by: entering into an interagency agreement in 1994; initiating tropospheric and stratospheric studies in 1994; providing interim assessments by the end of 1995; completing stratospheric studies in 1998; and completing tropospheric studies by the end of 1999.

1995 - 1996 Milestones

2. Initiate and participate in a joint FAA/NASA research program on reducing high speed and subsonic engine emission by the year 2000 by: entering into an interagency agreement during 1995; developing the technology to reduce the emission of oxides of nitrogen by 60 percent and the emission of unburned hydrocarbons by 40 percent relative to the 1986 ICAO standards by the year 2000; and to reduce specific fuel consumption and therefore carbon dioxide and water vapor emission by 20 percent by the year 2000.

3. Advocate the adoption of a U.S. NOx (oxides of nitrogen) standard for engine emissions in 1996 that is consistent with the ICAO standard, which will become effective in 1995, and to investigate the development of cruise altitude engine emissions' standards by the year 2000.

4. Maximize efficiency of operational procedures to reduce aircraft ground operations (taxiing, holding, etc.) by 10 percent in 1996 and by 25 percent at selected airports by 2000.

5. Develop by 1996 Emission Dispersion Model enhancements to support decisions on conformance of airport development programs to state implementation plans as required by Clean Air Act amendments.

1997 - 1998 Milestones

6. Maximize efficiency of routes and en route procedures to minimize flight time and delays by 20 percent by 2000.

Environmental Responsibility

Objective 9C. Create an environmentally effective and responsive FAA both domestically and internationally.

1994 Milestones

1. Influence EPA and other Government agencies in formulating and maintaining regulations and policies that affect FAA and/or the aviation industry by establishing industry/FAA/EPA (or other Agency) forums or working groups to assess the impact of new and proposed regulation by 1994. These mechanisms should ensure that aviation receives treatment equivalent to that accorded other modes of transportation.

2. Expand on existing collaborative process to ensure that affordable general aviation fuels will be available for the existing reciprocating-engine fleet and new generation aircraft.

1995 - 1996 Milestones

3. Develop training and policy guidance, and review processes to ensure that environmental impacts of all significant FAA operations and decisions are appropriately assessed prior to the point at which programs can be blocked, beginning in 1994 and completed by 1998. (National Environmental Policy Act -- NEPA).

4. Achieve environmental compliance in FAA facilities through: initial compliance assessments at all FAA facilities by 1997 (follow-ups ever 5 years); correction of deficiencies in existing operational procedures within one year of detection; and completion of cleanups (excluding long-term monitoring) to remedy past practices by 2010.

5. Support airport technology R&D to develop environmentally acceptable alternatives for de-icing and anti-icing agents.

6. Reduce system fuel consumption by 5 percent through flexible flight procedures, optimum route generation and traffic management by the year 1996 and by 10 percent by 1999.

7. Reduce FAA energy consumption in all non-exempt facilities by 10 percent by the year 1996 from a 1985 baseline and by 20 percent by 2000.

8. Develop a baseline inventory of potential pollutants used in FAA operations by 1997; eliminate release of highly toxic substances by 1999, and reduce the use of potential contaminants, by 30 percent of 1997 baseline, by 2002.

9. Work to ensure that the ICAO Committee on Aviation Environmental Protection meeting in late 1995 fully considers economic impact in its recommendations on stringency and land use.

* Attainment of milestones for 1995-1998 is dependent upon R&D funding levels for FY 1996 and beyond as originally programmed.

FAA Organization

FAA must serve its customers better with fewer resources. Various studies, initiatives, Executive Orders, the National Performance Review, and the Airline Commission have recommended major change for the agency.

FAA must become more productive and businesslike. Supporting customers means not only surveying them, but acting on their needs -- and doing so with a leaner, more productive organization that knows costs, measures performance, and focuses resources accordingly. Success in reengineering the FAA organization will significantly affect its ability to achieve success in all other areas.

FAA Organization

Goal 10: Operate FAA like a business.

FAA's Business Focus will address a shift toward practicing and valuing:

- Customer service;
- Cost reduction and containment; and
- Accountability for results.

OBJECTIVES:

10A. Make FAA a customer-focused organization that anticipates and meets customer needs.

10B. Reduce the overall cost of operating FAA without reducing safety.

10C. Achieve significant relief from existing personnel, acquisition, and budget constraints.

1994 Milestones

1. Establish prototype baseline unit costs per primary FAA service/product by 7/31/94. (Include costs of internal management, cost of service production, delivery, procurement.)
   a. Baseline unique program costs.
   b. Identify and baseline common program costs.

2. Respond to the Executive Order to establish and implement an annual customer assessment of services.

3. Establish baseline performance measures for primary FAA services.

4. Develop alternative organizational models and processes enabling FAA to operate more like a business.

5. Respond to the National Performance Review by reducing internal personnel, acquisition, and budget policies and procedures by 25 percent.

6. Create an FAA Integrated Product Development System of interdependent teams that function across product life-cycles.

7. Form an industry and agency partnership to introduce new technology into the aviation system.

8. Create a shareholder concept for agency cost savings in which a part of the savings goes back to the organizations that reduced costs, based on cost/performance indicators.

FAA Organization

OBJECTIVES: *(cont'd)*

10A. Make FAA a customer-focused organization that anticipates and meets customer needs.

10B. Reduce the overall cost of operating FAA without reducing safety.

10C. Achieve significant relief from existing personnel, acquisition, and budget constraints.

1995 - 1996 Milestones

9. Reduce primary unit costs by five percent from constant dollar baseline.

10. Respond to the National Performance Review by achieving a 1:7 supervisory to employee ratio.

11. Respond to the National Performance Review by achieving a 6 percent reduction from the 1993 level in the total work force. (1996)

12. Respond to the National Performance Review by reducing internal personnel, acquisition, and budget policies and procedures by 50 percent from the 1993 baseline.

13. Produce an annual report to customers on cost/performance, including unit cost/performance data.

14. Assess customer feedback and adjust services to meet customers changing needs and requirements.

15. Identify and implement FAA fee for service ventures to increase the total budget base.

16. Complete reengineering of budget, accounting, personnel, and acquisition processes to reduce response time for personnel and acquisition by one third.

1997 - 1998 Milestones

17. Respond to the National Performance Review by achieving a 12 percent overall reduction from the 1993 level in the agency work force. (1999)

18. Respond to the National Performance Review by achieving a 1:12 supervisory/employee ratio. (1999)

19. Reengineer FAA's aviation education program as a way of nurturing our youth and assuring that there will be a supply of outstanding candidates capable of supporting America's aviation system.

FAA Organization

Goal 11: Transform FAA into the model Federal workplace.

OBJECTIVES:

11A. Create a work force that mirrors the Nation's diversity.

11B. Eliminate discrimination and harassment in the workplace.

11C. Optimize work force productivity through communication, innovation, and alternative work systems.

1994 Milestones

1. Hire women, minorities, and people with disabilities in accordance with their representation in broad occupational groupings in the civilian labor force.

2. Train and promote women, minorities, and people with disabilities at least in accordance with their representation in the occupational and workplace groups from which they are chosen.

3. Eliminate barriers within FAA that prevent full participation by women, minorities, and people with disabilities.

4. Create an environment where managers and staff are held accountable for achieving results.

1995 - 1996 Milestones

5. Establish and maintain effective partnerships with all unions.

6. Achieve a 75 percent positive response to overall job satisfaction as measured by the employee job satisfaction survey.

7. Reduce barriers that unnecessarily limit employee access to agency-wide information needed for decision making.

8. Hire, train, and promote women, minorities, and people with disabilities in accordance with their representation in the occupational and workplace groups from which they are chosen.

9. Promote full participation by women, minorities, and people with disabilities in all FAA activities.

10. Establish communication capability to support information-sharing for decision making and distance learning agencywide.

11. Maintain a work environment where managers and staff are held accountable for achieving specific results.

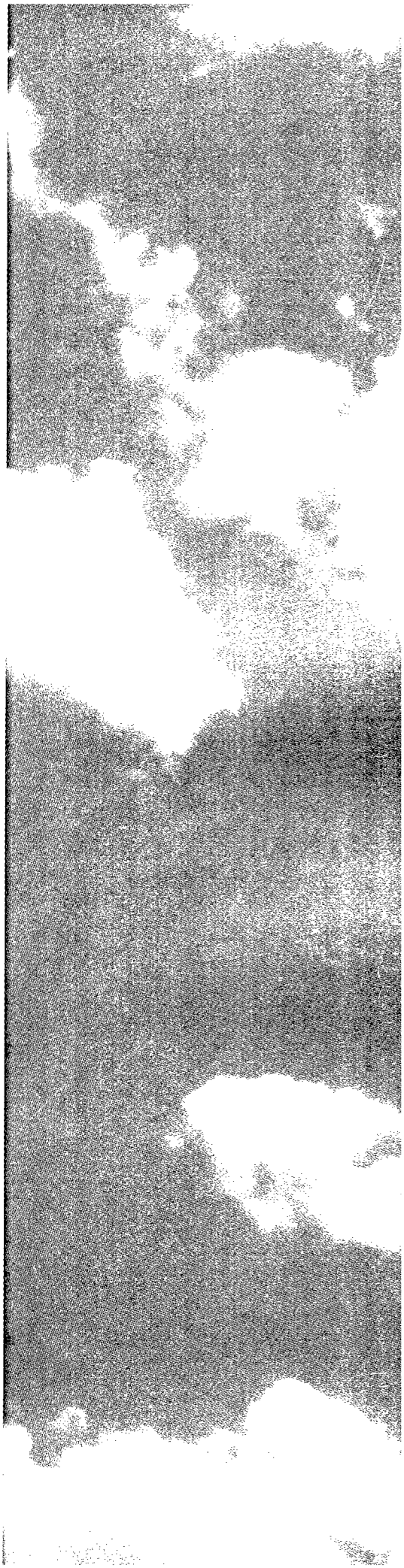
12. Create a work environment that values intellectual activity, measurable by an increased level of education and technical competence, and improved training. Maintain a world-class aviation library.

1997 - 1998 Milestones

13. Maintain a 75 percent positive response to overall job satisfaction on the employee job satisfaction survey.

14. Hire, train and promote women, minorities, and people with disabilities in accordance with their representation in the occupational and workplace groups from which they are chosen.

15. Promote full participation by women, minorities, and people with disabilities in all FAA activities.



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